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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,818	08/17/2001	Sung-Won Lee	678-731 (P9922)	3308

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DILWORTH & BARRESE, LLP
333 EARLE OVINGTON BLVD.
UNIONDALE, NY 11553

EXAMINER	
BHANDARI, PUNEET	
ART UNIT	**PAPER NUMBER**
2666	

DATE MAILED: 08/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/931,818	LEE ET AL.	
	Examiner	Art Unit	
	Puneet Bhandari	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11-14 and 24-27* is/are allowed.

6)☐ Claim(s) *1-10, 15-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 24 objected to because of the following informality on line 18, by "the target BSC" after request message should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims **1,4,5,9,10,18,19 & 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Madour et al. (US 6,834,050) in view of Manning et al. (US 6,580,699).

Regarding claim 1, Fig. 5 of Madour et al. teaches a method for storing dormant state information of mobile stations (MN-40) in a dormant state where no packet data is exchanged with an external packet network (WCDMA), in a centralized database (VLR) connected to a packet data switch (MSC)-step(91). The reference discloses information about the dormant state connection is stored in the VLR in column 7, lines 60-67 and column 8 lines 1-28.

The step of updating the dormant state information (assignment complete message) stored in the centralized database (VLR) in association with the mobile

station when the mobile station (MN-40) in the dormant state moves to a target BSC (Target BSC-86) adjacent to a source BSC (Source BSC-85) in a wireless packet data system (WCDMA) is taught by Fig. 5 steps 92,94 & 101 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

The limitation wireless packet data system includes a packet data switch node (PDSN) is disclosed by PDSN-90 in Fig.5.

The step of connecting the external packet network (WCDMA) to the mobile stations (MN-40) through the packet data switch (PDSN-54) and the source BSC (Source BSC-51) connected to the packet data switch (PDSN-54) is disclosed in Fig. 3 by step 69 and also in column 7, lines 1-46 of Madour et al.

The step of receiving from the mobile station (MN-40) at the target BSC (target BSC-86) a location registration message (origination message-92) when the mobile station moves to the target BSC (target BSC-86) adjacent to the source BSC (Source BSC-85) is taught by Fig. 5 step 92 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

The limitation upon receipt of the location registration (origination message-92) message, transmitting from the target BSC (target BSC-86) to the centralized database (VLR) a location update message (Assignment Complete –101) for updating a location of the mobile station is taught by Fig. 5 step 101 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.;

The limitation upon receipt of location update message (Assignment Complete – 101, updating by the centralized data base (VLR) the dormant state information for the

mobile station is taught by Fig. 5 step 101 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.;

The step of transmitting from the centralized database (VLR) to the target BSC a location update result message indicating complete update of the dormant state information is taught by Fig. 5 steps 95-99 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

Madour et al fails to disclose connecting the target BSC to the source BSC. Manning et al teaches connecting target BSC (BS-N-18) and source BSC (BS-O-16) refer column 4, lines 55-67 and column 5, lines 1-11. At the time invention was made it would have been obvious to one in ordinary skill in art to add to the method of Madour et al. step of connecting target BSC to the source BSC of Manning et al. One in ordinary skill in art would have been motivated to do so to exchange information about the connection between BSC (refer column 2, lines 35-41 of Manning et al.).

Regarding claims **4,9,18 & 23** Madour et al. further teaches the step of location update message includes an identifier of the mobile station (IMSI), and a location information (channel information) of the mobile station disclosed in column 8, lines 20-30.

Regarding claims **5,10 & 19** Mandour et al further teaches location information (channel information) of the mobile station identifier is an identifier (channel) of the target BSC. The reference teaches target BSC assign channel to the mobile as disclosed in column 8, lines 20-30.

4. Claims **2,6,7,16 & 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mandour et al. (US 6,834050) in view Manning et al. (US 6,580,699) as applied to claim 1 above, and further in view Warrier et al. (US 6,707809).

Regarding claim **2,7,16 & 21** Mandour et al. in view Manning et al. teaches all the limitation of claim 2 (refer rejection for claim 1 above) except Mandour et al. in view Manning fails to disclose dormant state information includes an identifier of the mobile station, location information of mobile station, a last registration time of mobile station and a source BSC ID of mobile station. Warrier et al. discloses idle mobility binding record database (dormant state information) that includes IMSI number of mobile (identifier of the mobile station), mobility binding records (location information of mobile station, a last registration time of mobile station and a source BSC ID of mobile station) (refer column 7, lines 19-50 and column 10, lines 10-27 of Warrier et al.). At the time invention was made it would have been obvious to one in ordinary skill in art to add to the dormant state information of Mandour et al. and Manning et al. mobility binding record database of Warrier et al. One in ordinary skill in art would have been motivated to do this to uniquely identify mobile node in an idle mobility binding data-base (refer column 7, lines 30-35 of Warrier et al.).

Regarding claim **6**, Fig. 5 of Madour et al. teaches a method for reconnecting an exchange of packet data between a mobile station (MN-40) and an external packet network (WCDMA) also disclosed in column 7, lines 60-67 and column 8 lines 1-28.

Fig. 5 step 91 of Madour et al. teaches storing dormant state information of mobile stations in a dormant state where no packet data is exchanged with the external

packet network, in a centralized database (VLR) connected to a packet data switch (MSC) also disclosed in column 7, lines 60-67 and column 8 lines 1-28..

The step of updating the dormant state information (assignment complete message) stored in the centralized database (VLR) in association with the mobile station when the mobile station (MN-40) in the dormant state moves to a target BSC (Target BSC-86) adjacent to a source BSC (Source BSC-85) in a wireless packet data system (WCDMA) is taught by Fig. 5 steps 92,94 & 101 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

The limitation wireless packet data system includes a packet data switch node (PDSN) is disclosed by PDSN-90 in Fig.5.

The step of connecting the external packet network (WCDMA) to the mobile stations (MN-40) through the packet data switch (PDSN-54) and the source BSC (Source BSC-51) connected to the packet data switch (PDSN-54) is disclosed in Fig. 3 by step 69 and also in column 7, lines 1-46 of Madour et al.

The step of receiving from the mobile station (MN-40) at the target BSC (target BSC-86) an origination message for requesting transmission of packet data (step-92); upon receipt of the origination message (step 92), transmitting from the target BSC (target BSC-86) to the centralized database (VLR) a dormant state information request message for requesting dormant information (step-94) is taught by Fig. 5 steps 92 & 94 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

Madour et al. fails to disclose transmitting from the target BSC to the source BSC, a packet call connection message for requesting reconnection of the packet call

and thus connecting the source BSC to the target BSC through the packet data switch. Manning et al teaches connecting target BSC (BS-N-18) and source BSC (BS-O-16) refer column 4, lines 55-67 and column 5, lines 1-11. At the time invention was made it would have been obvious to one in ordinary skill in art to add to the method of Madour et al. step of connecting target BSC to the source BSC of Manning et al. One in ordinary skill in art would have been motivated to do so to exchange information about the connection between BSC (refer column 2, lines 35-41 of Manning et al.).

Mandour et al. in view Manning fails to disclose the limitation upon receipt of the dormant state information request message, searching by the centralized database dormant state information stored in association with the mobile station and transmitting the searched dormant state information using a search result message to the target BSC.

Warrier et al. discloses idle mobility binding record database (which are stored at centralized data-base-VLR) is searched for information related to mobile (see column 7, lines 20-45 of Warrier et al). The limitation transmitting the searched dormant state information using a search result message to the target BSC is disclosed by step 95 of Mandour et al.

At the time invention was made it would have been obvious to one in ordinary skill in art to add to the dormant state information of Mandour et al. and Manning et al. mobility binding record database of Warrier et al. One in ordinary skill in art would have been motivated to do this to uniquely identify mobile node in an idle mobility binding data-base (refer column 7, lines 30-35 of Warrier et al.).

5. Claims **3,8,17 & 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Mandour et al. (US 6,834050) in view Manning et al. (US 6,580,699) and in view of Warrier et al. (US 6,707809) as applied to claim 2 above, and further in view of Foti et al. (US 6,751,204).

Regarding claims **3,8,17 & 22** Mandour et al. in view Manning et al. and in view of Warrier et al. teaches all the limitation of claim 3 (refer 103 rejection for claim 2 above) except Mandour et al. in view Manning et al. and in view of Warrier et al. fails to discloses assigning a temporary identifier to the mobile station, a service option and service configuration. Foti et al. discloses routing using TDLN-Temporary Directory Line number in wireless packet network see Fig 2A (steps 98-106 and also refer column 5, lines 30-56). At the time invention was made it would have been obvious to one in ordinary skill in art to add to the method of Mandour et al.,Manning et al. and Warrier et al the step of assigning a temporary identifier to the mobile station of Foti et al. One in ordinary skill in art would have been motivated to do this to route the call in a visited mobile network (see column 2, lines 34-45 of Foti et al.).

6. Claim **20** rejected under 35 U.S.C. 103(a) as being unpatentable over Madour et al (US 6,834050) in view of Warrier et al (US 6,707,809).

Regarding claim 20, Fig. 5 of Madour et al. teaches a method for storing dormant state information of mobile stations (MN-40) in a dormant state where no packet data is exchanged with an external packet network (WCDMA), in a centralized database (VLR) connected to a packet data switch (MSC)- step (91). The reference discloses

information about the dormant state connection is stored in the VLR in column 7, lines 60-67 and column 8 lines 1-28.

The step of updating the dormant state information (assignment complete message) stored in the centralized database (VLR) in association with the mobile station when the mobile station (MN-40) in the dormant state moves to a target BSC (Target BSC-86) adjacent to a source BSC (Source BSC-85) in a wireless packet data system (WCDMA) is taught by Fig. 5 steps 92,94 & 101 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

The limitation wireless packet data system includes a packet data switch node (PDSN) is disclosed by PDSN-90 in Fig.5.

The step of connecting the external packet network (WCDMA) to the mobile stations (MN-40) through the packet data switch (PDSN-54) and the source BSC (Source BSC-51) connected to the packet data switch (PDSN-54) is disclosed in Fig. 3 by step 69 and also in column 7, lines 1-46 of Madour et al.

The step of transmitting from the mobile station to the target BSC an origination message for requesting transmission of packet data is disclosed by step 92 in Fig. 5 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

The limitation upon receipt of the origination message, transmitting from the target BSC to the centralized database a dormant information request message for requesting dormant information is disclosed in step 94 of Fig 5 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

The step of connecting by the target BSC the mobile station to the PDSN through the packet data switch based on the dormant state information included in the search result message is disclosed in step 103 of Fig 5 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

Mandour et al. fails to disclose the limitation upon receipt of the dormant state information request message, searching by the centralized database dormant state information stored in association with the mobile station and transmitting the searched dormant state information using a search result message to the target BSC.

Warrier et al. discloses idle mobility binding record database (which are stored at centralized data-base-VLR) is searched for information related to mobile (see column 7, lines 20-45 of Warrier et al). The limitation transmitting the searched dormant state information using a search result message to the target BSC is disclosed by step 95 of Mandour et al.

At the time invention was made it would have been obvious to one in ordinary skill in art to add to the dormant state information of Mandour et al. and Manning et al. mobility binding record database of Warrier et al. One in ordinary skill in art would have been motivated to do this to uniquely identify mobile node in an idle mobility binding data-base (refer column 7, lines 30-35 of Warrier et al.).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claim **15** is rejected under 35 U.S.C. 102(e) as being anticipated by Mandour et al. (US 6,834,050).

Regarding claim 15, Fig. 5 of Madour et al. teaches a method for storing dormant state information of mobile stations (MN-40) in a dormant state where no packet data is exchanged with an external packet network (WCDMA), in a centralized database (VLR) connected to a packet data switch (MSC)-step(91). The reference discloses information about the dormant state connection is stored in the VLR in column 7, lines 60-67 and column 8 lines 1-28.

The step of updating the dormant state information (assignment complete message) stored in the centralized database (VLR) in association with the mobile station when the mobile station (MN-40) in the dormant state moves to a target BSC (Target BSC-86) adjacent to a source BSC (Source BSC-85) in a wireless packet data system (WCDMA) is taught by Fig. 5 steps 92,94 & 101 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

The limitation wireless packet data system includes a packet data switch node (PDSN) is disclosed by PDSN-90 in Fig.5.

The step of connecting the external packet network (WCDMA) to the mobile stations (MN-40) through the packet data switch (PDSN-54) and the source BSC

(Source BSC-51) connected to the packet data switch (PDSN-54) is disclosed in Fig. 3 by step 69 and also in column 7, lines 1-46 of Madour et al.

The step of transmitting to the target BSC a location registration message when the mobile station moves to the target BSC adjacent to the source BSC is disclosed in step 92 in Fig 5 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

The limitation upon receipt of the location registration message (step 92), transmitting from the target BSC to the centralized database a location update message for updating a location of the mobile station (step 94) and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

The limitation upon receipt of the location update message, transmitting from the centralized database to the PDSN a location information update request message for requesting designation of the target BSC as a source BSC is disclosed by steps A9-A11 in fig 5 and also column 7, lines 20-67 and column 8 lines 1-28 of Madour et al;

The limitation upon receipt of the location information update request message, designating by the PDSN the target BSC as a new source BSC and transmitting an acknowledge message to the centralized database is disclosed by steps A9-A11 in fig 5 and also column 7, lines 20-67 and column 8 lines 1-28 of Madour et al; and

The limitation upon receipt of the acknowledge message, updating by the centralized database the dormant state information for the mobile station by the centralized database and transmitting a location update result message indicating complete update of dormant state information to the target BSC is taught by Fig. 5 steps

95-99 and also disclosed in column 7, lines 60-67 and column 8 lines 1-28 of Madour et al.

Allowable Subject Matter

9. Claims **11-14** and **24-27** are allowed.

Regarding claim **11**, prior art of record fails to teach the limitation upon receipt of the location information message, transmitting from the source BSC to the target BSC where the mobile station is located a paging request message for requesting paging of the mobile station, transmitting page response acknowledge message acknowledging the paging to the source BSC when the mobile station responds to the paging; further, transmitting from the source BSC to the target BSC a packet call connection message requesting connection of the packet data , and thus connecting the source BSC to the target BSC through the packet data switch.

Regarding claims **13-14**, are also allowable since they depend upon claim 11.

Regarding claim **24**, prior art of record fails to teach the limitation upon receipt of the location information message, generating by the target BSC an internal paging request message and transmitting a page message for paging the mobile station based on the paging request message and upon receipt of a paging response message from the mobile station in response to the page message, generating an internal paging response acknowledge message and transmitting to the centralized database a query message for requesting service information of the mobile station.

Regarding claims 24-27, are also allowable since they depend upon claim 24.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Madour (US2002/0021681), Josse et al. (US 6,104,929), Branes et al. (US 6,711,147),Madour et al. (US 6,912,214) and Kim et al.(US 6,519,235).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Puneet Bhandari whose telephone number is 571-272-2057. The examiner can normally be reached on 9.00 AM To 5.30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Puneet Bhandari
Examiner
Art Unit 2666

DANG TON
PRIMARY EXAMINER